LISTING OF CLAIMS

Please amend the claims as follows:

1. (Currently Amended):   A method, including steps of

determining first values for a set of parameters for a communication link, in a first layer of an OSI model communication system;

sending information using said first values;

obtaining information regarding characteristics of said communication link; and

adjusting said first values in response to said information regarding characteristics of said communication link, whereby further use of said communication link is responsive to said steps of ~~adjusting.~~ adjusting;

wherein:

said step of obtaining information comprises monitoring dropped packets; and

said step of adjusting said first values comprises adjusting said first values in response to relative frequency with which packets are dropped on the communication link.

2. (Currently Amended):   A method ~~is~~ as in claim 1, wherein said first values include at least two of: an antenna selection value, a power level value, a channel selection value, a modulation type value, a symbol rate value, an error code type value, a set of equalization values.

3. (Original): A method as in claim 1, including steps of

determining alternative values for said set of parameters for a second communication link in said communication system;

sending information using said second communication link;

obtaining alternative information regarding characteristics of said second communication link; and

adjusting said alternative values in response to said alternative information, whereby further use of said second communication link is responsive to said steps of adjusting.

4. (Original): A method as in claim 3, wherein said steps of adjusting said alternative values are responsive to a result of said steps of adjusting said first values.

5. (Original): A method as in claim 3, wherein said steps of determining alternative values are responsive to a result of said steps of determining first values.

6. (Currently Amended): A method as in claim 1, further including steps of

determining second values for a set of parameters for said communication link, in a second layer of said communication system; and

adjusting said second values in response to said information regarding characteristics of said communication link; and responses said information; and

wherein said steps of sending information use said second values.

7. (Currently Amended): A method is as in claim 6, wherein

said first layer includes a media access layer; and

said second layer includes at least one of: a physical layer, a network layer, a transport

layer, an application layer.

8. (Currently Amended): A method is as in claim 6, wherein

said first layer includes a physical layer; and

said second layer includes at least one of: a media access layer, a network layer, a

transport layer, an application layer.

9. (Currently Amended): A method is as in claim 1, 6, wherein said second values include

at least one of: a message size value, a set of acknowledgment and retransmission values, a TDD

duty cycle value.

10. (Currently Amended): A method as in claim 1, wherein said steps of adjusting include

determining second values in response to said information regarding characteristics of

said communication link; and

combining said first values and said second values;

whereby said first values are adjusted in response to a result of said steps of combining.

11. (Currently Amended): A method is as in claim 10, wherein said steps of combining

include adaptively altering said first values using at least one hysteresis parameter.

12. (Currently Amended):   A method ~~is~~ <u>as</u> in claim 1, wherein said steps of determining are responsive to a higher-level layer in said communication system<u>, said higher-level layer being numerically higher than said first layer in an OSI model</u>.

13. (Currently Amended):   A method ~~is~~ <u>as</u> in claim ~~12,~~ <u>6,</u> wherein

said first layer includes a media access layer; and

said second layer includes at least one of: a network layer, a transport layer, an application layer.

14. (Currently Amended):   A method ~~is~~ <u>as</u> in claim 12, wherein

said first layer includes a physical layer; and

said higher-level layer includes at least one of: a media access layer, a network layer, a transport layer, an application layer.

Claims 15-27 (Canceled).

28. (Currently Amended):   Apparatus including

a first device capable of sending information to a second device using a communication link;

said first device being capable of dynamically determining characteristics of said

communication link for use in communicating with said second device and of altering

parameters of said communication link in response to relative frequency with which packets are

dropped on said communication link, resulting in altered parameters;

said first device being capable of formatting first information for sending to said second

device regarding said characteristics, and capable of at least one of (a) formatting second

information for sending to said second device using said ~~characteristics, or~~ altered parameters,

and (b) receiving information from said second device using said ~~characteristics~~ altered

parameters.

29. (Original): Apparatus as in claim 28, wherein said first device includes a transmitter for

sending information using a wireless communication link.

30. (Original): Apparatus as in claim 28, wherein said first device includes a timer for sending or

receiving information using a time division multiple access communication link.

Claims 31-35 (Canceled).

36. (New):   A method for communicating between a first station and a plurality of second

stations, comprising:

determining first values for a set of parameters of a communication link between the first

station and a second station;

communicating payload information between said first station and said second station using said first values;

monitoring, at said first station, characteristics of said communication link;

adjusting said first values in response to said monitoring step, resulting in adjusted first values; and

sending the adjusted first values from the first station to the second station in a descriptor packet.

37. (New): A method as in claim 36, further comprising:

receiving the adjusted first values at the second station; and

reconfiguring the second station in accordance with the adjusted first values.

38. (New): A method as in claim 37, wherein said step of reconfiguring is performed prior to communication of first data payload burst between the first station and the second station following said step of receiving.

39. (New): A method as in claim 37, wherein said set of parameters comprises physical parameters for the communication link.

40. (New): A base station comprising:

a transmitter;

a receiver;

a memory storing a set of instructions; and

a processor capable of executing the instructions and communicating with a plurality of

remote communication devices using the transmitter and the receiver;

wherein:

the plurality of the communication devices comprises a first remote communication

device;

the set of instructions comprises:

instructions that, when executed by the processor, cause the processor to

determine first values for a set of parameters of a communication link between the base

station and the first remote communication device,

instructions that, when executed by the processor, cause the processor to

communicate a first payload information over the link using the first values;

instructions that, when executed by the processor, cause the processor to monitor

communication of the first payload information over the link and obtain one or more link

characteristics associated with communication of the first payload information;

instructions that, when executed by the processor, cause the processor to adjust

the first values in response to the one or more link characteristics, resulting in adjusted

first values; and

instructions that, when executed by the processor, cause the processor to

communicate a second payload information over the link using the adjusted first values.

41. (New):   A base station according to claim 40, wherein the set of parameters comprises physical parameters of the link.

42. (New):   A base station according to claim 41, wherein the instructions that cause the processor to monitor communication comprise instructions that, when executed by the processor, cause the processor to monitor dropped packets on the link.

43. (New):   A communication system, comprising:

a base station comprising a base transmitter, a base receiver, a base memory storing a base set of instructions, and a base processor executing the base instructions, the base processor being capable of communicating using the base transmitter and the base receiver; and

a remote device comprising a remote transmitter, a remote receiver, a remote memory storing a remote set of instructions, and a remote processor capable of executing the remote instructions;

wherein:

the base set of instructions comprises:

instructions that, when executed by the base processor, cause the processor to determine first values for a set of parameters of a communication link between the base station and the first remote device,

instructions that, when executed by the base processor, cause the base processor to communicate a first payload information over the link using the first values;

instructions that, when executed by the base processor, cause the base processor to monitor communication of the first payload information over the link and obtain one or more link characteristics associated with the communication of the first payload information;

instructions that, when executed by the base processor, cause the base processor to adjust the first values in response to the one or more link characteristics, resulting in adjusted first values; and

instructions that, when executed by the base processor, cause the processor to communicate a second payload information over the link using the adjusted first values.

44. (New):   A communication system according to claim 43, wherein:

the base set of instructions comprises instructions that, when executed by the base processor, cause the base processor to send the adjusted first values to the remote device;

the remote set of instructions comprises instructions that, when executed by the remote processor, cause the remote processor to receive the adjusted first values and reconfigure the first remote device in accordance with the adjusted first values.